behaviour characteristic of sick animals. Koob and colleagues' contribution is a review of the role of CRF in other behavioural stress responses, and in the following chapter Nemeroff and Owen consider its part (cause or effect?) in depressive illness and anxiety states.

The symposium was a timely event, given the burgeoning interest in CRF and this volume, with its detailed reports of the discussion which followed the presentations makes one disappointed to have missed the live meeting. It is hard to fault this well-produced, efficiently indexed book. As always, some contributors to discussion tended to use it to present their own uninvited results, but that is a small price to pay to have such a wealth of information between two covers, in an accessible form.

Peter Chevins

Neurotrophic Factors; edited by A.A. Boulton, G.B. Baker and F. Hefti, Humana Press; Totowa, New Jersey, 1993. xviii + 422 pages. $89.50. ISBN 0-896-03249-3.

This book is part of the Neuromethods series. As such, its emphasis is methodological, and the neurotrophic factors of the title are the glue that holds the chapters together. The outcome, therefore, is a wide-ranging review of methods that includes the purification and sequencing of the factors, the screening for related genes using low stringency hybridization, the production of recombinant protein, the transfection of the factors and their receptors, as well as the use of in vivo models and axonal regeneration.

Consequently, the book cannot hope to be comprehensive; the whole of protein purification and sequencing is covered in 20 pages, whilst each topic may be found as the subject of a complete book elsewhere. Similarly, because each method is described as it has been applied to the study of neurotrophic factors, the text is a curious mixture of methods (including protocols) and results, with different chapters leaning in different directions. The result is that the coverage of the literature is partial, and the methodology is more of the 'tested methods' variety than the 'secrets' as proclaimed on the jacket.

Having said that, this book contains within one volume a good enough review of the literature in the field of neurotrophic factors, and enough help in the protocols to launch a researcher into a new area of interest. I suspect that this volume will have parts that prove useful to most workers or potential workers in the field.

J.A. Smith

Tumor Necrosis Factor: Molecular and Cellular Biology and Clinical Relevance; edited by W. Fiers and W.A. Buurman, Karger; Basel, 1993; x + 256 pages. SFr 323.00, DM387.00, £161.50, $258.50. ISBN 3-8055-5676-4.

This book contains papers presented at the 4th International Conference on Tumor Necrosis Factor and Related Cytokines held in Veldhoven, The Netherlands in May, 1992. It contains 35 articles ranging from 5 to 10 pages in length, covering the nature of the two Tumor Necrosis Factors (TNFs), their genes and sections on the TNF receptors, the cellular mechanisms of action of TNFs, their involvement in pathophysiological phenomena, in auto-immune and infectious diseases, and finally in cancer and their potential in cancer therapy.

Although the original interest in TNF lay in its potential as an anti-tumour agent, it is now clear that it is a major component of the cytokine network, involved in immune and inflammatory responses, in combatting viral, bacterial and parasitic infections, and apoptosis as well as diverse other normal processes. TNF overproduction is implicated in septic shock, arthritis, graft–host disease and many other diseases.

From the papers presented here, it is evident that the precise details of the regulation of TNF gene expression, release of membrane bound forms of TNF and interaction with the receptors are well characterised, and the significance of shedding of ligand binding domains of TNF receptors from the cell surface is beginning to be unravelled. However, the signal transduction mechanisms activated by TNF remain far from clear, with tantalising hints (but no more) that phospholipases C or A_2, and protein kinases and phosphatases are implicated at some stage. Indeed, as the reader proceeds through the book the articles become increasingly phenomenological with only rare definitive clues to mechanisms underlying the physiological and pathological events described.

The early promise that TNF held out as an anti-tumour agent has been dented by its toxicity when systematically administered at therapeutic doses. However, some interesting contributions monitor progress with modified forms of TNF and other strategies which might widen margins between toxic and therapeutic doses, and others announce encouraging success with clinical trials with TNF in combination with interferon and chemotherapeutic agents in isolated limb perfusion.

The book is a very useful guide to the state of progress in the TNF field in mid-1992, although the multiple contribution format generates a niggling repetition of redundant background information. The quality of articles is reasonably uniform for such a text, but the level of experimental detail given is variable. Despite a frustrating number of typographical errors, the standard of reproduction of the text and paper quality are excellent, but at that price they should be! Nevertheless, unless I was working in the broad TNF field, I would find a chapter on TNF in a current review journal better value for time and money.

Mike Billett